

## TEMPLE UNIVERSITY

## HEALTH SCIENCES CENTER PHILADELPHIA, PENNSYLVANIA 19140

January 29, 1973

Dr. Frederich W. Nordsiek
Associate Director
The Council For Tobacco Research - U.S.A., Inc.
110 East 59th Street
New York, N.Y. 10022

Dear Dr. Nordsiek:

I was delighted to have the opportunity of speaking with you over the telephone and hope that sometime in the near future we can meet.

I enclose two copies of our paper entitled "Measurement of the Initial Rate of Serum Cholesterol Esterification" which was accepted for publication by Biochemical Medicine on June 12, 1972. I anticipate that this should be published within the next month or two.

One of the reviewers also wanted an amplification of number 2, under section 5 of our application. Our data have shown, as yet unpublished, that LCAT activity is slightly lower in the female than in the male. We have pursued this finding by measuring LCAT activity throughout three consecutive menstrual periods in the female. This study has been completed but our chemical data are not as yet available because we wanted to do all determinations simultaneously. Hopefully this data will be available soon and ready for submission for publication. We wondered whether the cholesterol metabolism in the ovary might have some bearing on the differences in LCAT activity between male and female and for that reason wanted to determine whether there were any consistent changes throughout the menstrual cycle. PReliminary data suggest that there is such a cyclic change but I am not as yet prepared to say so with certainty.

We have studied LCAT activity both in fasting and fed rat, and incidentally have also studied LCAT activity in several different animals. A paper has already been prepared on LCAT activity in various animals with an attempt to relate LCAT activity to resistance and susceptibility to atherosclerosis. I enclose a copy of this manuscript but would like you and whoever reviews the manuscript to recognize that it is still confidential because it has not been published. Our work on the fasting and fed rat suggest differences from that which has been reported in the literature previously by cruder methods of measuring LCAT but again all of the data have not been collected so that a definitive statement cannot be made as yet.

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We have found some very interesting inter-relationships between postheparin lipolytic activity and LCAT and a manuscript has been submitted for publication. I enclose this manuscript but again would like to call your attention, and the reviewers', to the fact that this manuscript should be regarded as confidential because the material has as yet not been accepted for publication or published.

We are, at the present time, studying the possibility that the surface of the red blood cell contains LCAT. There is suggestive evidence in our original work on the interaction between the arterial wall and red blood cell which to my mind could not be explained unless there were actually LCAT on the surface of the red blood cell separate and distinct from LCAT in the plasma. These studies are too premature for me to discuss at the present time.

I think you already have abstracts on our work which tends to relate thyroid over and under function to LCAT activity and also the possibility that familial type II hyperlipoprotenemia may be associated with a deficiency of LCAT activity.

These papers are being prepared for publication. We are also studying the possibility that there might be a cholesterol ester hydrolyzing enzyme in plasma and this work whould be completed within the next month or two. Finally, we are fortunate enough to have Dr. Wallace Clark, Professor of Pathology and in charge of electronmicroscopy here at Temple, to study some of the morphologic changes of the lipoproteins after we have stimulated our patients with heparin and other drugs. WE have as yet not started any experiments with respect to smoking.

If there are greater details or you would like preliminary reports on any of these studies which have as yet not been written in final manuscript form, I shall be very happy to send them to you.

Sincerely yours,

Louis A. Soloff, M.D.

Blanche P. Levy Distinguished

Service Professor

Professor of Medicine

IAS:jc Enclosures

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